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FLOATING ARCHITECTURE AS ALTERNATIVE LIVING ON THE WATER TO TACKLING HOUSING DEFICIENCY IN THE NIGER-DELTA NIGERIA

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Abstract

Part of the Global Environmental Problems (GEP) is the obvious rising global population which necessitates more demands for shelter. Some parts of Nigeria have more water spaces than lands for building developments. Such areas feel the rising cost of sand-filling of water bodies, building development, housing competence and climate change than others areas with lesser water bodies. Adding to lives and other properties, the Niger Delta area has lost buildings to flooding activities thus increasing the problems of housing deficiency. Floating architecture seems to be the alternative to living on the water to mitigate housing deficiency in the Niger Delta Nigeria. The research aims to propose a sustainable Floating Vernacular Architecture (SuFVA) for people living in riverine areas of the Niger Delta. It is necessary for the proposed Architecture to float due to rising sea levels in the event of flooding, thus, creating buildings that chart a resilient future to prevailing climate change and sustainable water management. Elements, such as building height, water depth and wave loads, moor and no moors, analyze the floating structure. This research is significant in bringing people closer to the natural and safe aquatic lifestyle even during floods, beautiful scenes, comfort, and lower energy bills. The disadvantage of living on the water will be limited space for storage. This study examines the visual and spatial characteristics of floating buildings. A qualitative approach using a naturalistic research method is employed. It surveys 11 floating houses in Tempe Lake as case studies employing observations and recording of physical details. It reveals that the houses consist of raft foundations, columns, roofs, doors, windows, floors, walls, roofs, and latrines. Other characteristics including functions, organization, circulation, orientation, an0d hierarchy are studied. It concludes that three categories of unique characteristics are adopted to set up the Floating Architectural concept safely.

Keywords. Floating Architecture, Housing Deficiency, Sustainability, Vernacular housing